THOMSON CONSUMER ELECTRONICS

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Donna R. Searcy
Secretary
Room 222
Federal Communications Commission
1919 M. Street, N.W.
Washington, D. C. 20554

Dear Ms. Searcy: April 20, 1993

Enclosed for filing with the Commission is an original and nine (9) copies of the Reply Comments of Thomson Consumer Electronics, Inc. relating to ET Docket No. 93-7

Yours truly,

Scott J. Stevens

/dp

cc: Bruce Franca w/encl.
Alan Stillwell "
Joe Peck "

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List A B C D E

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of Section 17	)	
of the Cable Television	)	
Consumer Protection and	)	ET Docket No. 93-7
Competition Act of 1992	)	
	)	
Compatibility Between Cable	)	
Systems and Consumer	)	
Electronics Equipment	)	

REPLY COMMENTS OF THOMSON CONSUMER ELECTRONICS, INC.

Thomson Consumer Electronics, Inc. ("Thomson") wishes to submit the following in response to the Comments filed by the various parities in connection with the Commission's Notice of Inquiry ("NOI") concerning compatibility requirements mandated by the Cable Television Consumer Protection and Competition Act of 1992 ("the Cable Act"). In addition to its own Comments submitted herein, Thomson supports the Reply Comments of the Consumer Electronics Group of the Electronics Industries Association ("EIA/CEG"). Thomson has long been an active participant in the EIA/CEG's activities and fully supports the premise of this organization in ensuring that the consumer obtains the best performing, highest quality product for the money. Thomson is concerned by some Comments submitted in this proceeding that would act to undermine this premise and feels compelled to make its views known to the Commission through these Reply Comments.

The Initial Comments of Many Parties Were Disappointing

Thomson applauds the efforts of the Commission to elicit comments from as many sources as possible in an attempt to frame a fair and equitable remedy for the existing compatibility issues between the consumer electronics and cable industries. Thomson is very disappointed, however, that the comments from members of the cable industry did little, if anything, to promote compatibility. Rather, the cable industry as a whole submitted comments that would increase compatibility problems, such as defending set-top boxes, asking for more complex boxes, promoting the requirement of

equipment interfaces, and generally placing the burden of compatibility on the consumer electronics manufacturers, without offering a workable compromise from the cable industry.

A Decoder Interface Requirement is Not the Solution

Comments from the cable industry tout the advantages of equipment interface ports as a boon to compatibility. Specifically, the majority of interface proponents look to the current EIA Standard 563 multiport as the solution. Thomson strongly urges the Commission to reject any requirement for an interface as part of its proposed rules for the following reasons.

By itself, an interface requirement does not promote or guarantee compatibility. Without detailed standards for signal transmission, decoding and descrambling, an interface standard alone would be unable to support an open transmission/scrambling environment for any reasonable length of time. A relatively small change in the transmission or scrambling system could easily compromise the interface, thereby rendering it useless and requiring the addition of a second interface; i.e. another set-top box, which would obviate any developmental or implementation expense needed to incorporate the now-useless interface.

It is also Thomson's belief, and the belief of many in the consumer electronics industry, that by the time any decoder interface could be designed, implemented in consumer electronics products, and become viable

in the marketplace, rapidly approaching digital transmission and scrambling schemes will have become sufficiently pervasive to make any currently contemplated interface obsolete. In particular, EIA 563, which is actively being supported by the cable industry and its members, is a totally inadequate solution. EIA 563 is not applicable to digital technology and therefore would have only a short term lifetime. This standard suffers from other shortcomings as well. The double connector "loopthru" provision specified in the standard was never tested. The communications protocol is rudimentary and lacks sufficient sophistication to support the currently contemplated uses. No provision exists for two-way interactivity. The standard does not achieve the desired objective of cross-brand compatibility. The standard has not been tested with sync suppression greater than 6 db. The standard does not comply with recent Commission standards that require ±2 db video response for cable signals. Phase modulation or line inversion scrambling techniques are not supported. The standard does not address the problems of consecutive channel recording and dual tuner picture in picture unless all equipment incorporates interface connectors. As an example, to achieve full benefit of these features would require two interface connectors for the television receiver and one for the VCR. Such a requirement would place an unreasonable cost burden on the consumer electronics manufacturer, which ultimately would be borne by the consumer. It is estimated that the inclusion of a single interface connector would increase the direct manufacturing costs of a piece of equipment from $4.00 to $6.00. When total developmental and implementation costs are considered, the resulting cost to the consumer is estimated to be of the order

of $18.00. The EIA 563 standard requires a number of superfluous ports that are unnecessary for descrambling, therefore increasing the size, cost and complexity of the equipment connector. This is particularly important in the design of VCRs since size is of primary importance. Finally, the interface connector would not benefit consumers that were not connected to cable or cable customers that do not require a set-top box. It is estimated that these consumers may make up as much as 70% of the TV households in the United States. These consumers would then bear the cost, but not reap any benefit from the requirement of an interface device.

Overlooked in the proposed interface requirement is the fact that any adoption of an interface requirement totally ignores the installed base of millions of consumer electronics products which would not benefit at all, nor the time needed to establish a significant number of installed products once an interface device becomes available. As Thomson believes that it is the Congressional intent and the Commission's desire to serve consumers by promoting compatibility, the only solution in Thomson's mind is to mandate that signals be provided to consumer electronics equipment "in the clear". Current technology exists through interdiction and traps, with broadband descrambling being a potentially viable solution as well, that will guarantee compatibility going forward. Moreover, signals "in the clear" will immediately benefit the current installed base. The fact that such technologies are currently in increasing use demonstrates its cost effectiveness and belies the cable industry's caveats.

Conclusion

Thomson strongly urges the Commission to promote compatibility via a two step process. For analog applications and current NTSC equipment, the only viable solution in Thomson's view is to mandate signals "in the clear". This solution can be based on current proven technology and guarantees compatibility going forward as well as addressing the needs of the users of equipment that makes up the currently installed base. For digital applications, Thomson respectfully requests the Commission to promote discussion between the cable and consumer electronics industries that will lead to mutually acceptable standards for digital transmission, compression and security relative to cable signals. Resources and technology should not be wasted on short term fixes that do not fully address the many factors that make up the overall issue of compatibility.

Respectfully submitted,

THOMSON CONSUMER ELECTRONICS, INC.

By Stephen Thomas.

Title: V.P. Business Planning.

April 21, 1993